

READING STAND WITH ATTACHED MAGNIFYING GLASS

BACKGROUND OF THE INVENTION

5 Field of the invention

The present invention relates to a reading stand with attached magnifying glass, in which the magnifying glass is of a size substantially identical to a copy holder of the reading stand and is mounted at a parallel position spaced apart from
10 the copy holder of the reading stand at a certain distance so as to allow the position relative to the copy holder to be adjusted.

Description of the Prior Art

15 Such a reading stand with attached magnifying glass has been disclosed in the Korean Utility Model No. 0284788 (titled READING STAND HAVING MAGNIFYING GLASS AND LIGHTING FUNCTION, issued to Chul-Woo PARK), in which, as shown in FIG. 1, the reading stand comprises a base plate 1, a copy holder 2 and a
20 support plate 4. The copy holder 2 is attached with a magnifying glass 7 and a lamp unit 8 using a flexible member 9, where the magnifying glass is smaller than the lamp unit.

This reading stand with attached magnifying glass is used to perceive small-scaled letters or pictures with a minimal
25 eyestrain during reading, and functions to enable the aged, who

have difficulty in reading due to presbyopia, to read books at ease.

However, there is a problem generated in that a user has to frequently manipulate the magnifying glass due to its
5 improper focus on a document or book on the copy holder of the reading stand while reading the document or book using the magnifying glass 7. Further, this is accompanied by inconvenience in that the lamp unit adjacent to the magnifying glass has to be used with frequent changes of its position.
10 For this reason, there is a necessity for a reading stand designed in a manner that the problem on displacement of the magnifying glass and the lamp unit can be solved, and that the focus of the magnifying glass can be maintained with accuracy.

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SUMMARY OF THE INVENTION

Accordingly, the present invention has been made to solve the above-mentioned problems occurring in the prior art, and an object of the present invention is to provide a reading stand
20 with attached magnifying glass, allowing for reading without frequent positioning of the magnifying glass, said magnifying glass having a size substantially identical to the copy holder of the reading stand.

It is another object of the present invention to provide a
25 reading stand with attached magnifying glass, allowing for

reading without frequent positioning of a lamp unit, said lamp unit being mounted on at least one edge of a rear surface of the magnifying glass in order to endow a function of lighting a readable object.

5 It is yet another object of the present invention to provide a reading stand with attached magnifying glass, capable of more precisely positioning the magnifying glass relative to a readable object on the copy holder of the reading stand.

 In order to accomplish these objects, there is provided a
10 reading stand, comprising: a base plate; a copy holder; a slant adjusting girder which is capable of adjusting the copy holder to have a preset slant angle relative to the base plate; a magnifying glass spaced apart from the copy holder and having a size substantially identical to that of the copy holder; and a
15 positioning means, coupled to an upper portion of the magnifying glass and to an upper portion of the copy holder, for allowing shifting of the magnifying glass in at least one of y- and z-axial directions, so that the magnifying glass is positioned on a plane parallel to the copy holder.

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BRIEF DESCRIPTION OF THE DRAWINGS

 The above and other objects, features and advantages of the present invention will be more apparent from the following
25 detailed description taken in conjunction with the accompanying

drawings, in which:

FIG. 1 shows a conventional reading stand with attached magnifying glass;

FIG. 2 is a perspective view showing a reading stand with
5 attached magnifying glass according to a first embodiment of the present invention;

FIG. 3 is a rear perspective view of the reading stand of FIG. 2;

FIG. 4 is a perspective view showing a reading stand with
10 attached magnifying glass according to a second embodiment of the present invention; and

FIG. 5 is a rear perspective view of the reading stand of FIG. 4.

15 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Hereinafter, a preferred embodiment of the present invention will be described with reference to the accompanying drawings. In the following description and drawings, the same
20 reference numerals are used to designate the same or similar components, and so repetition of the description on the same or similar components will be omitted.

FIG. 2 is a perspective view showing a reading stand with attached magnifying glass according to a first embodiment of
25 the present invention, and FIG. 3 is a rear perspective view of

the reading stand of FIG. 2.

The reading stand generally comprises a copy holder 200 for supporting books, a slant adjusting girder 210 hinged downward to a rear surface of the copy holder, a base plate 280 supporting the copy holder and the slant adjusting girder on its own upper portion. The copy holder 200 is also hinged to the base plate 280, so that the copy holder is pivotable about the base plate. A slant angle of the copy holder is changed depending on at which position of the base plate 280 the slant adjusting girder 210 rests.

The reading stand is mounted with a pressing unit 250 for pressing and fixing a set of pages of the book at a lower middle portion of the copy holder 200. The pressing unit provides elastic pressing force to prevent the pages from being inadvertently turned over, and is constructed to be mounted to the typical reading stand.

The present invention is for mounting a magnifying glass 220 to such a reading stand. Herein, said magnifying glass 220 is formed in a size similar to that of the copy holder 200 of the reading stand. This magnifying glass 220 is directed toward overcoming a problem wherein a user has to frequently manipulate the magnifying glass while reading a book or a document. Therefore, the magnifying glass of the present invention makes it possible for any user to read a book by aid of the magnifying glass at an initially set position, without

frequent repositioning the book or the magnifying glass.

The magnifying glass 220 functions as a convex lens, but is a flattened convex lens in which the bellied portion of the common convex lens is removed. In the present embodiment, the magnifying glass is used as a lens in a planar annual ring profile and made of an acryl material.

This magnifying glass is positioned by a height adjusting means. The height adjusting means includes a first guide plate 270 attached adjacently to a rear upper portion of the copy holder 200. The first guide plate 270 is inserted into a first fixture 260 so that the first fixture 260 is capable of shifting along the first guide plate 270 in a z-axial direction of FIG. 3. The first fixture 260 has a structure in which a space inserted by the guide plate 270 is formed in a hexahedral block, and includes a first fastening means 265 formed as a screw on a lower portion of the first fixture. Therefore, the first fixture 260 can be fixedly positioned through the first fastening means 265.

The first fixture 260 is integrally formed with a second guide plate 230, which extends in a y-axial direction of FIG. 3. The second guide plate 230 is formed with a slide slot 235. The slide slot 235 is elongated in the y-axial direction and functions to enable the magnifying glass to move along the slide slot. The second guide plate 230 is inserted into a second fixture 240, which is formed in a hexahedral box shape.

Further, the second fixture 240 is attached to the magnifying glass 220 on one side, and is coupled with a second fastening means 245 on the other side. The second fastening means 245 is formed into a screw and a knob and inserted through the second
5 fixture 240 and the slide slot 235. As the second fastening means 245 is tightened, both opposite sides of the second fixture 240 are approaching toward each other to be fixed to the second guide plate 230.

In the present invention, the magnifying glass can be
10 positioned in the y- and/or z-axial directions by the foregoing positioning means.

In addition, the present embodiment is adapted to perform a function as a lamp unit by attaching a lighting means to a lower surface of the magnifying glass. To be more specific, at
15 least one edge of the lower surface of the magnifying glass 220 is provided with a slimline fluorescent lamp 290. Preferably, the fluorescent lamp 290 is attached on both opposite edges of the lower surface of the magnifying glass 220. The fluorescent lamp 290 is electrically connected with a power supplying means
20 (not shown), which is installed to the reading stand, by means of the positioning means. Attachment of the fluorescent lamp 290 to the magnifying glass 220 is carried out either by bonding as a typical attaching method or by attaching using another bonding means.

25 FIG. 4 is a perspective view showing a reading stand with

attached magnifying glass according to a second embodiment of the present invention, and FIG. 5 is a rear perspective view of the reading stand of FIG. 4. Some components constituting the reading stand of the second embodiment, in particular, a copy
5 holder 400, a slant adjusting girder 410, a base plate 480 and a pressing unit 450 are identical to those of the first embodiment. Further, a first guide plate 470, a first fixture 460, a second guide plate 430 and a second fixture 440, all of which constitute a positioning means, are also identical to
10 those of the first embodiment.

In the second embodiment, a magnifying glass 420 is surrounded by a frame 500. The frame may be selectively made of a certain material, and preferably of a polymeric material having a light weight and a high strength, such as a plastic.
15 The frame 500 is attached to one side of the second fixture 440 and may be shifted through the second fixture 440. Further, a lighting means is attached to a rear surface of the frame 500. To be specific, a slimline fluorescent lamp is attached on one edge or both opposite edges of the rear surface of the frame
20 500. Due to this construction, the second embodiment can obtain effects wherein it is possible not only to facilitate bonding of the fluorescent lamp but also to prevent the magnifying glass from being damaged, as compared with the first embodiment.

25 An operation of the foregoing reading stand with attached

magnifying glass according to the present invention will be described based on the first embodiment as in FIGs. 2 and 3.

First, a slant of the copy holder 200 of the reading stand is adjusted using the slant adjusting girder 210. Then, a book or document is placed on the copy holder 200 and is fixed using the pressing unit 250. Subsequently, the magnifying glass 220 is shifted in at least one direction of the y- and/or z-axial directions by means of the positioning means, so that it is in focus for the eyes of a user. If necessary, the fluorescent lamp functioning as the lighting means may be used.

As mentioned above, according to the present invention, the magnifying glass is of a size similar to the copy holder of the reading stand, so that it is possible to read books without a frequent displacement caused by a size of the magnifying glass.

Further, the lighting means is attached to the magnifying glass of the reading stand, so that it is possible to make use of the lighting means when nocturnal reading and intensive reading are needed.

Moreover, the magnifying glass can be freely positioned, so that a user can read a book without a sharp change in focus by fixing the magnifying glass in place, thus reducing eyestrain during reading.

Although preferred embodiments of the present invention have been described for illustrative purposes, those skilled in

the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.